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This paper reviews a limited number of the more conspicuous efforts and proposals for improving teacher education which were reported in the 1960's. The first sections summarize two representative plans for the general education requirements for teachers and enumerate the kinds of innovations in higher education as a whole (as summarized in the literature) which affect the total university curriculum. A section reviewing several of the more prominent attempts to analyze and suggest improvements in the professional education of teachers includes discussion of Stanford University experiments, new instructional media in teacher education, the use of conceptual systems of teaching, alternatives to conventional student teaching, use of auxiliary personnel, and preparation of teachers for the inner city. Concluding sections present "some precautions regarding innovations" and "recommendations" for action by individual colleges and universities of the State of Illinois. The recommendations are categorized under six general needs: for carefully organized experimentation in teacher education programs, for alternatives to conventional student teaching programs, for programs to prepare teachers of disadvantaged children and youth, for collegiate involvement in inservice programs for teachers, for using teacher aides in the schools, and for recruitment of capable students into teaching. Included is a 21-item bibliography. (JS)

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**TEACHER EDUCATION:
AN EXPLORATION OF EFFORTS AND
PROPOSALS FOR ITS IMPROVEMENT**

**A Report Prepared for
Committee Q of the Illinois Board of Higher Education
October, 1968**

**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Like a cliché that one keeps encountering whenever there are discussions about the preparation of teachers, this chapter must start with the recognition that teacher education consists of general education, academic or applied field specialization, and professional education. To ignore the existence of such major components in the collegiate education of prospective teachers, even though the three categories occasionally become insufficiently distinct in practice, is to leave serious consideration for the improvement of teacher preparation conspicuously incomplete.¹ Unfortunately, many efforts and proposals for improving teacher education reflect such incompleteness. Indeed, various proposals and experiments for improving teacher education focus only upon the professional education component of teacher education. Such efforts ignore the improvement of general education or academic-applied field specialization other than perhaps adding a course or two to such curriculum areas after something has been shorn off of professional education. And yet, even the most severe critics of teacher education have acknowledged that for colleges and universities throughout the nation, approximately sixty percent and eighty percent of the total undergraduate curriculum, on the average, is devoted exclusively to nonprofessional academic preparation for prospective elementary and secondary school teachers respectively.²

This kind of incompleteness for improving the whole of teacher education through innovative practices becomes even more crucial when studies such as that of Baxter, Ferrell, and Wiltz are examined. Investigating the teaching and teachers of U.S. History in Indiana secondary schools, the historians on the investigation team did not conclude that ineffectual history teaching was principally a result of the history teachers' saturation with excessive education courses. Although citing a variety of causes for the poor status of history teaching, secondary school teachers of history were characterized generally as unbookish, nonintellectual products of dull preparation in history on the collegiate level while being captives of school environments which reinforced such bleak characteristics.³

The point again to be reemphasized here is that comprehensive improvement of teacher education must include qualitative renovation in academic and applied field specialization and general education, as well as professional education. Undoubtedly, there is necessity for substantive improvement in all three domains of the curriculum rather than mere manipulation of course credits from one domain to the other which represents a form of tinkering of the most superficial nature. The material which follows represents a survey of various efforts and proposals for the improvement of teacher education. Such material will address itself to

possible improvements in general education and specialization as well as professional education. However, since the bulk of literature dealing with improvements in teacher education concentrates on the professional component of the curriculum, the material which follows will also reflect this predominance. Furthermore, it would be impossible to provide a comprehensive coverage of efforts and proposals to improve teacher education. Instead, a more limited number of the more conspicuous efforts and proposals for improving teacher education which were reported in the 1960's is reviewed in order to serve as foci illustrating the range of innovations in teacher education.

General Education

General education in American higher education is characterized by extreme pluralism in design and organization. There probably are as many different programs of general education as there are colleges and universities with requirements in general education. Such requirements vary from one-fourth to two-thirds of the total undergraduate curriculum.⁴ One of the safe, although bland, observations that can be made about general education programs is that they usually involve some course requirements in each of the broad fields identified as the humanities, social-behavioral sciences, natural sciences and mathematics, plus perhaps some service courses in physical education. It is usually assumed that the general education requirements for prospective teachers be as good if not better than those for any other collegiate students regardless of their particular professional calling.

Two examples, those of Conant and Bell, will be used to illustrate some of the diversity apt to be found in proposals dealing with general education. Advocating the desirability of extensive use of proficiency examinations while indicating the general education requirements should constitute approximately half of the total undergraduate program, Conant proposed the following as illustrative of a good general education program for prospective teachers.⁵

<u>Subjects Already Studied in High School</u>	<u>No. of Courses</u>	<u>Equiv. Sem. Hours</u>
The English language and composition	2	6
The Western world's literary tradition	2	6
History (at least one-half other than American)	3	9
Art appreciation and music appreciation	2	6
Mathematics	2	6
Science (physical and biological, each studied consecutively)	4	12

<u>Subjects Not Studied in School</u>	<u>No. of Courses</u>	<u>Equiv. Sem. Hours</u>
Introduction to general psychology	1	3
Introduction to sociology and anthropology	1	3
Introduction to the problems of philosophy	1	3
Introduction to economics	1	3
Introduction to political science	<u>1</u>	<u>3</u>
	20	60

Others, such as Daniel Bell, have advocated much less conventional approaches to the organization of general education. Alarmed at the prospect of undergraduate general education dying under the pressure of early and excessive emphasis on academic specialization in the undergraduate school, Bell proposes that the entire undergraduate curriculum be devoted to general education. Such an approach, of course, would relegate professional education in such fields as teaching, engineering, and business administration, for example, to the graduate level exclusively. Bell argues that, on the undergraduate level, the major disciplines be taught in the first collegiate year and that they emphasize not merely dissemination of descriptive information, but the modes of inquiry and the conceptual schemes which characterize each of the disciplines. He further advocates intensive study during the sophomore and junior collegiate years in a particular discipline not necessarily as specialization, but as a form of obtaining depth of scholarship as an integral part of general education. Finally, Bell suggests that the undergraduate curriculum be topped in the fourth year by a new kind of general education course and program which he calls "the third-tier" focusing upon how knowledge from the various disciplines has broad sociocultural implications and relevance to policy questions in contemporary society.⁶

The two examples cited are indicative that diversity in proposed general education or liberal arts programs is the rule. Furthermore, there is no consistent pattern to general education in collegiate institutions within Illinois, nonetheless the nation. In Conant's words: "As it is often used at present--that is, with the idea that it describes a consistent and generally accepted pattern of studies--'liberal education' in this country is a myth."⁷ While such diversity and pluralism in general education might not be undesirable, we cannot assume that diversity represents an unequivocal virtue either. The quest for developing qualitative dimensions to general education and evidence of such quality deserves our continuous and dedicated attention in teacher education.

Innovations in General Education and Academic-Applied Field Specialization

It is virtually impossible to categorize the myriad assortment of innovations that one finds in collegiate education. Such diversified activities cover the waterfront and many represent attempts to respond to various problems, pressures, or criticisms that focus upon higher education while others involve creative efforts to enhance the quality of higher education. For example, to counteract developments in highly depersonalized mass education, small instructional colleges within the major university are being established while emphasizing closer and more personal instructional relationships between the professorial staff and the students. Other developments involve the significant revision of content being taught in various courses as a recognition and response to the curriculum revolution that is going on in the common schools of the nation. In addition, changes occur as a means of capitalizing upon more recent developments in instructional technology involving innovations such as autoinstructional materials, computer assisted instruction, and televised instruction in dormitories used as learning centers. Higher education also has seen a rash of honors programs, experiments with independent study, and utilization of many direct, off-campus experiences to enhance student learning. Almost without variation, such innovations are organized to demonstrate the feasibility of the project rather than its efficacy. In other words, the projects usually are long on visibility but rather short on producing valid evidence indicative of the quality of the results. This fact does not deny the possible inherent value of many of the innovations. It simply means that the innovations are put into practice without sufficient design and evaluation instruments to assess adequately their merits.

Perhaps here, it would be useful simply to describe briefly and enumerate the kinds of innovations in higher education as summarized in the literature.⁸ These innovations include the following: (1) Formulating smaller instructional units within the overall university structure. Such instructional units might be a set of small autonomous colleges, the use of dormitories as so-called "living-learning centers", or even the establishment of a single experimental college as a distinct unit within the university structure. (2) Allowing for independent study projects to be used as a means for all students to earn part of their credit toward the undergraduate requirements of the university and permitting such independent study projects for all students of the university at any time from the Freshman year to graduation. Such independent study projects also have involved the utilization of newer autoinstructional materials and computer-assisted instruction. (3) Utilizing a variety of new instructional media and

technology, principally as a means of freeing the professorial staff to engage in more creative acts of teaching while enhancing and making more efficient the total instructional process.

(4) Experimenting with extensive use of seminars and tutorial instruction in order to provide a balanced instructional program which incorporates some large group instruction and independent study as well. (5) Organizing year-round university schedules such as the trimester program in order to make more efficient use of the physical facilities of the college and to accommodate a greater number of students. (6) Developing programs providing for emphasis in intercultural education allowing opportunity for study abroad as part of the student's undergraduate program. (7) Planning as an integral part of the undergraduate curriculum a variety of off-campus experiences for the undergraduate students. The off-campus experience may consist, for example, of having the student assume job responsibilities related to his or her major field of concentration, pursuing a research-oriented field project, or becoming deliberately involved in certain community service activities. (8) Formulating organizations devoted to inter-institutional cooperation whereby several colleges or universities agree to such ventures as sharing of facilities, having joint course offerings, utilizing research facilities cooperatively and even agreeing upon the cooperative exchange of professorial staff.

The foregoing list is not intended to be exhaustive, but rather illustrative of the kinds of innovations being attempted in higher education. Furthermore, each category is impossible to describe as distinctive of the other categories. For example, it is rather absurd to consider the utilization of newer instructional media and technology unless one is also willing to address himself to fundamental questions about what kind of substantive content is to be transmitted by the new instructional media and toward what ends. Instructional media may serve as vehicles for the transmission of significant or trivial subject matter. Therefore, serious consideration of instructional technology to improve higher education cannot take place in a vacuum devoid of concomitant consideration of the substantive content which is to be transmitted or the goals to be achieved. Similar considerations are applicable to such innovations as independent study, dormitory living-learning centers, intercultural education, and the like. All such innovations must be incorporated in a system of formal instruction which involves clear identification of objectives as well as some means of assessing attainment of such objectives. As stated previously, such innovations often lack a clear relationship to explicitly stated objectives, and the means for evaluating the innovation's effects are either terribly unsophisticated or nonexistent. In reviewing the status of cumulative research and evidence covering the years from 1960 to 1965 relevant to educational programs on the collegiate level, the research reviewers concluded:

From this review of the research, no hard and fast conclusions appear justified, but some observations do seem warranted. Curriculum problems are persistent. The place and nature of general education are still unsettled, and articulation with secondary schools is a renewed concern. Faculty responsibilities and curriculum development do not appear settled. The need for more definitive research is a perennial one, especially in the area of curricula for higher education. It would seem that the increasing tempo of change should bring with it increased attention to experimentation and research as necessary to direct such change. There is some evidence that this is taking place, yet the very seriousness of the problems facing instructional leaders in institutions of higher education may make attention to research more difficult and less likely.⁹

Another team of research reviewers addressed their summarizing study to questions of evidence about the quality of teachers and teaching on the collegiate level. Indicating that an analysis of five years research on collegiate teaching left much to be desired, the reviewers insisted:

Since students as well as professors tend to resist change, established behaviors are not likely to be modified because an occasional faculty member tries a new approach. Without more effective means for stimulating experimentation and putting findings to productive use, many faculty members will continue to cling jealously to methods developed in an earlier time.¹⁰

It would seem to be unjust and invalid to claim that little is being done to try to improve quality of higher education. Indeed, higher education is experiencing a state of ferment in contemporary society. However, in view of the previously cited surveys of research relevant to higher education, it may not be inaccurate to indicate that colleges and universities have displayed a perhaps necessary preoccupation with administrative organization, physical facilities, finances, teacher shortages, and other logistical problems. And even in such important areas, the concern has not been characterized or augmented by very sophisticated analysis and research. On the other hand, complex problems of pedagogy and curriculum which are central to the operation of any college or university simply have not received the kind of intensive, systematic study which they deserve. It is not unreasonable to assume that methodical self-study for improvement of instruction and curriculum in colleges and universities be regarded as a first priority commitment within each

institution. Such deliberate study and effort for improvement of instruction and programs throughout the university curriculum will do more for raising the quality of teacher education than any improvements made possible by renovation of only the professional sequence.

CRITICISMS AND PROPOSED IMPROVEMENTS FOR THE PROFESSIONAL EDUCATION OF TEACHERS

During the past decade, there have been a host of articles and books written which have been highly critical of teacher education but with particular criticism focused upon the so-called "professional education" of prospective teachers. These criticisms have centered around several pervasive themes. One of these pervasive themes is the allegation that professional education courses are characterized by content suffering from inadequate systematic organization and intellectual substance. Other criticisms center around the contention that education courses are theoretically oriented with little or no relevance to actual classroom practice. On the other hand, a contradictory criticism has been that many education courses are too prescriptive or mechanical while emphasizing "tricks of the trade" that may be used in classroom practice. Other critical concerns are expressed about the apparent lack of coherence in the professional sequence with a claim that there is no clear relationship between the goals, content, and experiences provided for prospective teachers. Student teaching, however, often emerges as an ingredient of the professional sequence with a minimum of criticism. Despite such criticisms, virtually all critical reviews and studies of teacher education concede the desirability of some specialized or professional preparation for prospective teachers. The following reports are illustrative of some of the more prominent attempts to analyze and suggest improvements in professional education of teachers.

Some Major Studies of Teacher Education

One major critical study made of teacher education grew out of a conference sponsored by the Fund for the Advancement of Education which was held at the Center for Advanced Study in the Behavioral Sciences during the summer of 1960. A summary of this conference included eleven critical charges directed at the professional aspect of teacher education, but the conferees agreed on the following points:

Teacher preparation ought to include, in addition to liberal education: (1) Specialized knowledge of the subject to be taught, (2) Professional knowledge, which

includes understanding of the role of the school, contributions of the behavioral sciences, and an appreciation of the components of the educational process, (3) Practice teaching--under apprenticeship or internship, but always under wise guidance and direction, and (4) Unifying theory.

In addition the conferees recommended that improvements in teacher education could be fostered by the following emphases: (1) Devoting greater attention to examining teaching acts as representative syntheses of knowledge, values, and instructional methods. (2) Encouraging greater experimentation in various means of intellectual inquiry, such as seminars and independent study, as possible substitutes for formal courses. (3) Exploring alternative and more flexible procedures and requirements for teacher certification. (4) Pursuing depth studies of the areas presumed to be essential to the professional education of teachers.¹¹

Perhaps one of the most publicized studies on teacher education was the report of James B. Conant published in 1963. While the programs suggested by Conant in this publication include certain education courses as desirable, his overall recommendations are deliberately designed to promote freedom of experimentation in teacher education. Indeed, Conant characterizes his recommendations with the words "freedom" and "responsibility." Only student teaching should serve as a stipulated certification requirement for future teachers in each state, according to Conant. It is Conant's assumption that free but responsible institutional competition in teacher education programs will cause academic professors and education professors "...to join hands to enhance the reputation of their particular institution."¹² So-called "clinical professors" of education with considerable classroom teaching experience would be given the status and tasks somewhat analogous to that of clinical professors in medical schools. Essentially, such clinical professors of education would have the formidable responsibility of assessing the relevance and value of various aspects of the total collegiate curriculum to students' teaching performance in student teaching. In all, Conant makes twenty-seven recommendations for the improvement of teacher preparation. However, at the heart of Conant's recommendations lies his assumption that "How best can we prepare teachers?" is an open, empirical question. In short, it is a question to which we presently have inadequate answers and whereby experimentation with alternative programs of teacher education appears to be the only hope for arriving at better answers.

Conant's proposals have generated considerable controversy and debate. Some argue for example, that teacher education throughout the United States is already experiencing excessive diversity

in curriculum patterns and standards of quality. If qualitative standards for teacher preparation are left simply to each institution, the preparation of teachers could well be characterized by anarchy rather than by the diversity of pluralistic, responsible experimentation, argue some of the critics of Conant. Furthermore, other analysts of teacher education claim that Conant's proposals are oriented toward the preparation of classroom technicians or craftsmen rather than for preparing highly competent professionals who will be able to make wise decisions about curricula and the teaching-learning process. One of the more articulate critics of Conant has been Professor Harry Broudy, who insists that teachers be educated for much more sophisticated use of knowledge and skill in coping with educational problems than would be possible by craft-oriented preparation. According to Broudy, educational problems may be classified roughly into four areas: (1) Formulating and justifying aims and policies, (2) Designing and justifying curricula, (3) Organizing and rationalizing systems of schooling, and (4) Teaching-learning. In order to understand and cope with such problems in a competent, sophisticated manner, Broudy insists that all prospective teachers have the opportunity for systematic study in a professional curriculum such as follows:

- I. GENERAL PROFESSIONAL STUDIES FOR INTERPRETIVE USE
 - A. Humanistic Studies of Education in General
 - History of education (including cultural history of education)
 - Philosophy of education
 - Aesthetic education
 - B. Scientific Studies of (or Sciences) of Education
 - Psychology of education
 - Sociology of education
 - Economics of education
 - Anthropology of education
- II. PROFESSIONAL STUDIES IN THE FIELD OF SPECIALIZATION FOR APPLICATION
 - A. Humanistic Backgrounds of One's Speciality
 - B. Technology of One's Speciality
 - Theoretical studies (contributions of sciences to practice)
 - Clinical work and internship
 - Methods for production and consumption of research

It is assumed that such a professional curriculum would prepare teachers to analyze and understand significant educational problems as well as to help them become imaginative, skillful practitioners in the classroom.¹³

Besides such general analyses and proposals relevant to the improvement of teacher education, the literature is replete with descriptions of various experiments and innovations designed to improve teacher education. A few of these innovations and experiments are described in the section which follows.

Some Innovations for Improving Teacher Education

There are many different forms of innovations that can be described or identified as reported in the literature. In fact, the innovative practices are so diversified that it is often extremely difficult to classify such innovations in meaningful categories. For example, some innovations in teacher education represent the dramatic use of video taping equipment for the feedback effect that can be provided in helping teacher candidates improve instructional skills. The use of such equipment could classify the innovation as one principally focusing upon instructional technology. Another innovation, on the other hand, may utilize recent research into teaching as a tool for helping prospective teachers cope more effectively with instructional problems by classifying and analyzing teaching behaviors and exploring alternative means of improving such behaviors. Thus, such an innovation might easily be classified as one dealing principally with teaching procedure and substantive content in professional education.

Still another example might involve a special attempt to organize certain required courses in teacher education within a so-called professional semester which could include student teaching in a residential off-campus center. This type of experiment might be identified primarily as an innovation in the organization of the program. Finally, it is possible to emphasize different kinds of priorities or values within the professional education program. For example, instead of devoting considerable time to the study and application of instructional technology within the professional sequence, it may be considered more valuable to have teacher candidates work intensively with youngsters of various ethnic groups and in a variety of different actual school situations. In reality, however, innovations in teacher education in all probability incorporate to varying degrees all four forms of experimentation: instructional technology, substantive content, organizational pattern, and value priority. Classifying an innovation in any one of the four categories is misleading unless one realizes that the category is merely being used to identify a major emphasis in the innovation. To avoid this trap of superficially categorizing innovations in teacher education, the following account offers only general and illustrative innovations which characterize the ferment in teacher education today.

Stanford University Experiments. Perhaps some of the most interesting and important experimentation in teacher education is

being conducted at the Stanford University Center for Research and Development in Teaching. A variety of research projects are being conducted at the Center in order to develop insight and knowledge about teacher education and the phenomenon of teaching itself. Much of the research conducted at the Center represents attempts to analyze teaching into explicit, well-defined components that can be controlled, practiced, and evaluated with high degrees of reliability and validity. This systematic analysis of teaching is done in order to acquire meaningful knowledge about the professional decisions and technical skills employed by practitioners in actual acts of teaching. A training and research technique developed in such experimentation has been identified as "micro-teaching." Micro-teaching is simply a scaled-down version of teaching whereby the instructional session may last only from five to ten minutes and may involve limited objectives in working with no more than five pupils. The micro-teaching sessions are recorded on video tape and the tape playback is subject to analysis and evaluation. Thus, micro-teaching and the feedback which it provides becomes an important instrument for training and perfecting the instructional skills of prospective teachers; but more importantly, it becomes an important device allowing systematic analysis and study of teaching acts themselves. In such micro-teaching activities, prospective teachers can be taught to develop instructional proficiency prior to their student teaching, but as an integral part of their professional education sequence. In fact, the Stanford University experiments are producing results which indicate that a wide variety of important instructional skills may be taught and carefully studied by utilizing micro-teaching techniques and the feedback provided by reviewing the video tapes. Furthermore, analyses of micro-teaching tapes can provide clues of the relevance or lack of relevance that other aspects of the collegiate program may have to teaching performance. Micro-teaching thus offers invaluable opportunity for both the careful preparation of teachers and the systematic analysis of teaching.¹⁴

New Instructional Media in Teacher Education. One of the principal problems encountered when suggesting the utilization of new media such as video tape in micro-teaching is that some teacher educators become preoccupied with the media itself rather than with the function it can perform. Video taping hardware in and of itself has little value unless it serves to contribute to certain outcomes or objectives of the teacher preparation program. This, of course, is true of any other instructional media that has potential use in teacher education programs. There should be no reluctance to use new instructional media, but their relevance and applicability to attain certain outcomes must be clear. Using computer-assisted instruction for teacher candidates as a part of their professional preparation has enjoyed only modest use in

programs. Yet the potential for computer-assisted instruction in teacher education is enormous. Furthermore, the utilization of computer-assisted instruction may free college professors to engage in much more significant and imaginative acts of teaching with their prospective teachers. The same precautions and potential apply to the possible uses of other autoinstructional devices in teacher education.

Programmed books and "teaching machines" also have received relatively modest applications in teacher preparation programs. The whole area of programmed learning deserves careful study and experimentation in teacher education. In addition, simulated teaching materials in the form of video tapes or film clips have tremendous potential for helping prospective teachers study in some systematic fashion teaching acts and instructional problems illustrative of the kind with which they will have to cope. There is very little research providing clear answers as to how best to use the new media and with what precautions. Those in teacher education must be open and receptive to the wise utilization of simulated teaching materials, television, programmed instruction, computer-assisted instruction, and the host of additional developments that instructional technology will bring in the future. The central concern should be one of utilizing such media wisely so that their use facilitates the attainment of functional goals in teacher education. The use of advanced media simply to create the illusion of technological sophistication can be an ineffectual and costly venture.¹⁵

Using Conceptual Systems of Teaching. As mentioned previously, micro-teaching offers an extremely useful device for training teachers; but more importantly, it provides a means of capturing a small segment of actual teaching and subjecting this segment to systematic analysis and study. However, in studying the acts of teaching, some system or means of ordering, describing, and analyzing the teaching acts is needed. In other words, some conceptual scheme of the components of the teaching acts is necessary for the study of teaching to be meaningful and useful. Various systems have been developed for describing and analyzing teaching as a result of research into the nature of teaching. This research into teaching has generated certain ways of categorizing or conceptualizing components of the teaching act. These components of the teaching act and their definitions become the concepts by which others may describe and analyze the phenomenon of teaching. The entire set of concepts developed for describing teaching becomes a cognitive map useful for trying to understand teaching as well as to try to learn how to cope with instructional problems. Research into teaching itself has provided a variety of such cognitive maps which may be used by prospective teachers in the clinical analysis of teaching and instructional problems. Such clinical analysis of teaching appears to hold much promise

for teacher education. For example, prospective teachers may study teaching and instructional problems through the use of various simulated teaching materials. This type of study can be followed with micro-teaching experiences. Both the simulated teaching materials and micro-teaching experiences can be subjected to clinical analysis by teacher candidates using certain conceptual systems in the analysis. In sum, such approaches can help prospective teachers develop various behaviors relevant to making wise decisions and performing effectively in instructional situations. But even more important, the prospective teachers will develop intellectual tools for self-analysis and self-correction of their instructional planning and teaching.¹⁶

Alternatives to Conventional Student Teaching. Although student teaching has remained the one major component of professional education with the minimum amount of criticism, suggestions have been offered for alternative means of satisfying the objectives of such a professional practicum. For example, some of the Master of Arts in Teaching programs described in the section which follows have internships which offer remuneration. The internship plan initiated and practiced at Harvard University involved the hiring of two graduate trainees in teacher education by a public school system to take the place of one beginning teacher for an academic year. Each intern was paid for one semester of full-time teaching during alternate semesters, thus filling the job of one regular teacher. Some supervision of the trainees during their paid internship was provided by both the public school system and the university.^{16A}

Another alternative to conventional student teaching that has been employed is the establishment of special summer semester student teaching programs. Such summer programs have been designed to accommodate teachers with provisional certificates who are required to have student teaching for regular certification. In addition, such summer programs have been used as a means of providing student teaching to people in other vocations or fields of preparation who later become interested in studying and certifying for a teaching career.

The most controversial alternative suggested for student teaching has been the proficiency examination. Such an examination may be based upon a combination of written tests and analyses of micro-teaching sessions. However, the proficiency exam route has not been widely used as a practical substitute for actual experience in student teaching or an internship.

Reorganizing the Entire Professional Sequence of Teacher Education. Various attempts have been made within the past decade or so to reorganize the entire professional sequence of teacher education. Sometimes this reorganization of the professional sequence has

been condensed and relegated exclusively to a fifth-year graduate program. To some individuals, it is preferable to have all professional education relegated to the graduate years, while preserving the undergraduate years strictly for liberal arts education. This contention gave rise to the development of master of arts in teaching (MAT) programs. Generally, MAT programs have involved the recruitment of liberal arts graduates who have little or no previous professional preparation. These liberal arts graduates enter a fifth year of study which combines professional education courses, some continued academic specialization, and some form of supervised teaching or internship. Although MAT programs throughout the nation have not produced substantial numbers of teachers for the classrooms, they have generally been accepted as a useful alternative to undergraduate programs for preparing teachers.

Other more recent experiments in revising the professional sequence involve efforts to capitalize upon some of Conant's recommendations for improving teacher education including his notion of the clinical professor. For example, Northwestern University has instituted an experimental tutorial and clinical program of teacher education. This program allegedly eliminates all formal, conventional courses in education required of prospective teachers and in the place of such courses offers tutorials in each of the undergraduate years in which regular faculty members of the School of Education work with groups of from ten to twelve students. Clinical professors in this program are master teachers in the local school systems who hold faculty appointments in both Northwestern University and the school system. These professors teach in the classroom of the school system as well as supervise the so-called clinical work of the students enrolled in the university program. The fundamental assumption underlying the experimental program at Northwestern is that professional education can best serve as a synthesizing or integrative function in the preparation of teachers. An additional operating assumption is that there must be systematic effort to relate and coordinate the overall university program to students' classroom teaching performance.¹⁷

A proposal for revamping the entire professional sequence in a new, coherent framework was made by LaGrone in a project executed for the American Association of Colleges for Teacher Education. Essentially, LaGrone suggested a reorganization of the professional sequence in teacher education with the following emphases:

- (1) The analytical study of teaching, (2) The structure and use of knowledge, (3) Concepts of human development and learning, (4) Teaching learning strategies, and (5) The evaluation of teaching competencies. These five emphases were to be organized in an integrated system of professional education imaginatively utilizing the newest instructional media.¹⁸

As stated earlier, the foregoing descriptions of proposals or practices for innovation in teacher education are only terse, illustrative samples. It would be impossible to offer here a comprehensive survey of practices for improving teacher education.¹⁹ However, a few additional developments regarding teacher education and teacher retention in the profession are sufficiently important to deserve special attention in this report.

Use of Auxiliary Personnel

For considerable time, the teaching profession has been criticized for imposing various tasks and responsibilities on teachers which are inappropriate ways of utilizing their professional competencies. It has been argued that we must learn to use teachers more wisely and efficiently. It is claimed that there is considerable difficulty in attracting and keeping bright, talented individuals in the teaching profession if various mundane, clerical chores are imposed upon them as part of their regular duties. In order to recruit teachers, retain them in the profession, and use their professional talents more wisely, it has been suggested that school systems employ the use of various auxiliary personnel or teacher aides. Such teacher aides would be utilized to perform a host of nonprofessional tasks. Among these tasks are the supervision of study halls, serving as homework helpers to students, reading and correcting compositions or themes written by students, serving as assistants to school counselors, helping students with the use of autoinstructional materials, scoring objective tests, duplicating instructional materials, supervising playground and lunchroom facilities, and maintaining various school records. It is argued that by having teacher aides perform such nonprofessional chores, regular teachers will then have more time to devote to planning for teaching, individualizing instruction, and counseling students. Undoubtedly, there are many possible uses of teacher aides which may contribute constructively and significantly in assisting teachers. Furthermore, wise use of teacher aides may contribute substantially to improving the quality of the instructional program since such use would provide more time for the teacher to perform her professional responsibilities.

Preparing Teachers for the Inner City

Considerable criticism has been directed at teacher educators for their inability to prepare teachers who can perform functionally and effectively in inner-city schools. Justifiably or not, teacher education programs have been characterized as preparing middle-class teachers to work with middle-class students in middle-class suburban communities. Problems of effective education for inner-city youth are so significant and immediate that they demand priority consideration in any discussion of teacher education programs. A program to prepare inner-city school teachers must be

characterized by careful relevance of knowledge and experiences to the forces, problems, and dynamics of urban society. The teacher being prepared to work in inner-city schools must learn to thoroughly understand the personal and social characteristics of the students whom he will teach; he must be knowledgeable and sensitive to their values and modes of behavior. His program of preparation must be truly interdisciplinary, for an understanding of the problems of the inner city is dependent upon relevant knowledge from the social and behavioral sciences. Furthermore, he must have direct observations and experiences with the children and schools of the city. No token gestures in formulating such new teacher preparation programs will do. Such programs must be characterized by relevant, realistic preparation to cope with the educational problems found in the inner city.²⁰

SOME PRECAUTIONS REGARDING INNOVATIONS

Virtually all of the innovations or experiments in teacher education, both those involving the academic program as well as the professional sequence, have little or no reliable evidence to validate their effectiveness. As indicated earlier, most of the projects described that are being practiced are usually done so as demonstrations suggesting their feasibility. Clearly defined goals, explicit curricular treatments, related evaluation procedures, and systematic collection of data are not usually found as concomitant ingredients of the innovative project. There are some exceptions to this generalization as with some of the more carefully designed research projects being conducted at the Stanford University Center for Research and Development in Teaching. However, in the vast majority of the cases, reports of innovational practices in teacher education simply take the form of persuasive suggestions and descriptions of what is being done or should be done for more effective teacher preparation. Examining such reports forces one into the difficulty of trying to decide which persuasive suggestions are better than the others in view of the lack of any substantial evidence.

Furthermore, there is a tendency for different institutions and programs to utilize the same nomenclature for highly diverse, sometimes inconsistent practices. For example, Conant's interesting proposal for the establishment and use of "clinical professors" in practice teaching has been misappropriated in various programs to the point where in Conant's words, "We had been surprised, and to some extent shocked, by what we found in many institutions."²¹ In some instances uncovered by Conant, the clinical professorship was simply a title used to rationalize a university's abdication of its responsibility for close supervision of its student teachers. I am sure that similar accounts can be discovered in distorted practices that are described

under the title "Micro-Teaching." Therefore, one cannot assume that a teacher education program is avant-garde, thoughtfully organized, or even interestingly conducted simply because descriptions of the program indicate that it utilizes "clinical professors", "micro-teaching " or some other innovation.

In addition, many innovations in teacher education are suffering from a tinkering syndrome. That is, only a little segment of the program is modified such as, for example, changing the content of a single course, using some simulated teaching instructional material, or having prospective teachers take three more semester hours in their field of academic specialization. Often the entire professional sequence fails to receive thoughtful renovation with all of its parts organized in a clear, coherent framework leading to explicit outcomes for the teacher candidates. Even more distressing is the difficulty one encounters in trying to identify carefully planned relationships between the general education, academic specialization, and professional education aspects of the total collegiate program.

Regardless of how well conceived and expertly operated, no program of teacher education can claim that it can produce a completely polished professional. The program can develop some fundamental professional skills as well as the intellectual tools and background knowledge needed for continued growth and development in teaching competence. This continued growth must be stimulated by in-service programs and the general atmosphere for productive performance provided by public school systems. The long range success of teacher education depends to a large degree upon how the universities and public school systems work together for the improvement of the teaching profession.

Finally, the nature of teacher education programs depends to a large degree on the kinds of common school programs that exist in which teachers are to function. This produces somewhat of a dilemma for those engaged in the preparation of teachers. On one hand, they must prepare teachers who can operate functionally in existing programs. On the other hand, they must prepare teachers who are knowledgeable, willing, and courageous enough to change appreciable many of these existing programs. In the final analysis, our society will obtain the kind and quality of teachers it deserves. If society wants bright, innovative, and highly professional practitioners in its classroom, it must request, respect, and recognize such characteristics with social and financial support as well as with the realization that the preparation of such practitioners is a complex, demanding task that also requires greater consideration and support than it has been given in the past.

RECOMMENDATIONS

The recommendations which follow generally represent a summary of the major ideas described in the overall chapter. These recommendations are largely devoted to suggested measures which will improve both the quantitative and qualitative aspects of teacher education. However, the recommendations also impinge upon suggestions for the possible recruitment and retention of highly qualified individuals in the teaching profession. These recommendations are expressed as six general needs for the improvement of teacher education which can be pursued as action steps by the individual colleges and universities of the State of Illinois.

1. The need for carefully organized experimentation in teacher education programs.
 - a. Organizing and experimenting with more diverse and flexible arrangement of courses, seminars, and independent study in teacher education.
 - b. Attempting to improve teacher education through the more imaginative use of instructional media, simulated teaching materials, and micro-teaching in relation to carefully identified objectives.
 - c. Utilizing various conceptual systems of teaching as a means of helping prospective teachers engage in the clinical analysis of teaching and instructional problems.
 - d. Experimenting with different overall models of professional education such as the tutorial and clinical program, MAT programs (some of which could be offered at extension centers without residence requirements at the home campus), and the like to assess their possibilities for improved teacher preparation.
 - e. Conducting experimental efforts for instructional improvement and closer relationships between general education, academic specialization, and professional education within the overall collegiate curriculum for prospective teachers.
2. The need for alternatives to conventional student teaching programs.
 - a. Experimenting with pre-degree internship programs which offer some means of remuneration for the interns.

- b. Increasing the number, quality, and availability of summer student teaching programs throughout the state.
 - c. Experimenting with the utilization of proficiency examinations given by the colleges and universities in the place of student teaching for individuals holding provisional certificates who have teaching experience.
3. The need for programs to prepare teachers of disadvantaged children and youth.
- a. Organizing and designing special programs using supporting state and federal funds for the preparation of teachers to perform functionally and effectively with disadvantaged children and youth.
4. The need for collegiate involvement in in-service programs for teachers.
- a. Providing greater commitment and resources of institutions of higher education in collaboration with public school systems for the in-service education of beginning teachers to improve their professional competence and to promote their retention in the teaching profession.
 - b. Providing greater collaboration between institutions of higher education and public school systems for continuing education programs, curriculum improvement projects, and other projects aimed at improving the quality of instruction.
5. The need for using teacher aides in the schools.
- a. Preparing teachers to work with and utilize teacher aides effectively so that their own professional competence will be used more wisely.
 - b. Encouraging and helping junior colleges throughout the State of Illinois organize and design programs for the preparation of teacher aides.
6. The need for recruitment of capable students into teaching.
- a. Publicizing more fully the programs of teacher education along with the values and opportunities for careers in the education professions.

- b. Designing special programs such as the Master of Arts in Teaching program in order to attract capable individuals into teaching from other careers.
- c. Extending efforts to recruit promising students from disadvantaged areas into teacher education programs.

FOOTNOTES AND
REFERENCES

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